

wherein;

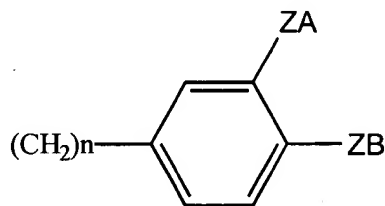
$R_6 = S$ or O

R_3 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q ; and K ;

R_8 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q ; and K ;

wherein

Q has the general formula:



wherein;

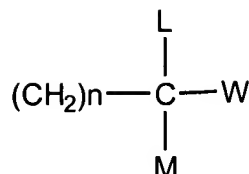
$n = 0$ or 1 ;

$Z =$ a bond, CH_2 , NH , O or S ;

A and B can form a ring by adding 1-3 CH_2 groups when $Z = CH_2$, NH , O or S ; and

A and B are not in a ring when $Z =$ a bond, wherein A and B are independently selected from the group consisting of hydrogen; halogen; $C_1 - C_8$ alkyl; $C_1 - C_8$ alkoxy; $C_3 - C_8$ cycloalkyl; $C_3 - C_8$ cycloalkoxy; hydroxy; phenyl; benzyl; and benzyloxy; wherein said phenyl, benzyl and benzyloxy are optionally substituted with halogen, $C_1 - C_8$ alkyl, $C_1 - C_8$ alkoxy, $C_3 - C_8$ cycloalkyl, $C_3 - C_8$ cycloalkoxy and hydroxy;

K has the general formula:



wherein;

$n = 0$ or 1 ;

L and M are independently selected from the group consisting of hydrogen and methyl;

W is selected from the group consisting of Q; hydroxy; benzyloxy optionally substituted with halogen, $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_1 - \text{C}_8$ alkoxy, $\text{C}_3 - \text{C}_8$ cycloalkyl, $\text{C}_3 - \text{C}_8$ cycloalkoxy and hydroxy; aryl; heteroaryl; and a heterocyclic ring;

provided that when R_3 is methyl, R_8 is not hydrogen;

and pharmaceutically acceptable salts thereof;

and at least one pharmaceutically acceptable excipient; said composition in the form of a solid dosage form selected from the group consisting of a tablet, gelcap, capsule, caplet, granule, and lozenge.

5. (Twice Amended) The pharmaceutical composition of claim 1, wherein said compound is selected from the group consisting of:

3-butyl-hypoxanthine;

3-butyl-thiohypoxanthine;

3-ethyl-hypoxanthine;

3-ethyl-thiohypoxanthine;

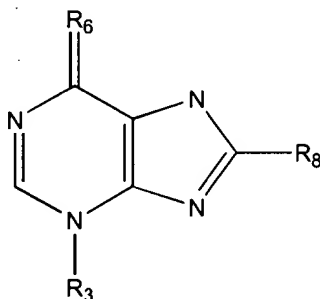
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3,8-diethyl-hypoxanthine;
3,8-diethyl-thiohypoxanthine;
3-ethyl-8-cyclopropyl-hypoxanthine;
3-ethyl-8-cyclopropyl-thiohypoxanthine;
3-propyl-hypoxanthine;
3-hexyl-hypoxanthine;
3-hexyl-thiohypoxanthine;
3-benzyl-hypoxanthine;
3-benzyl-thiohypoxanthine;
3-(4-methyl-butyl)-hypoxanthine;
3-(4-methyl-butyl)-thiohypoxanthine;
3-(2-methyl-butyl)-hypoxanthine;
3-(2-methyl-butyl)-thiohypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-hydroxy-1-methyl-ethyl)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-methyl-ethylene)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(benzyloxymethyl)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-(4-methoxybenzyloxy)-1-methyl-ethyl)-
hypoxanthine;
3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-(4-fluorobenzyloxy)-1-methyl-ethyl)-
hypoxanthine;
3-(3-benzyloxy-4-methoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;

B²
Contd

3-(3-4-dimethoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;
 3-(3-benzyloxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-hydroxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-4-dimethoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(1,3-benzdioxole-5-methyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(4-chloro-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-chloro-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-4-dimethoxy-benzyl)-8-(1-(4-fluorobenzyloxy)-1-methyl-ethyl)-hypoxanthine;
 and pharmaceutically acceptable salts thereof.

17. (Amended) A pharmaceutical composition comprising a compound of the formula:

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in an effective amount to inhibit the PDE-IV enzyme upon administration to a human patient, wherein;

$R_6 = S \text{ or } O$

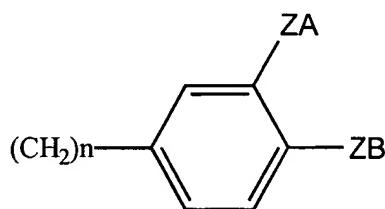
R_3 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or

branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q; and K;

R_8 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q; and K;

wherein

Q has the general formula:



wherein;

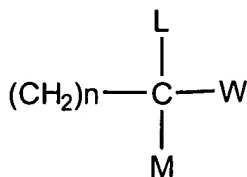
$n = 0$ or 1 ;

$Z =$ a bond, CH_2 , NH , O or S ;

A and B can form a ring by adding $1-3 CH_2$ groups when $Z = CH_2$, NH , O or S ; and

A and B are not in a ring when $Z =$ a bond, wherein A and B are independently selected from the group consisting of hydrogen; halogen; $C_1 - C_8$ alkyl; $C_1 - C_8$ alkoxy; $C_3 - C_8$ cycloalkyl; $C_3 - C_8$ cycloalkoxy; hydroxy; phenyl; benzyl; and benzyloxy; wherein said phenyl, benzyl and benzyloxy are optionally substituted with halogen, $C_1 - C_8$ alkyl, $C_1 - C_8$ alkoxy, $C_3 - C_8$ cycloalkyl, $C_3 - C_8$ cycloalkoxy and hydroxy;

K has the general formula:



wherein;

n = 0 or 1;

L and M are independently selected from the group consisting of hydrogen and methyl;

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contd

W is selected from the group consisting of Q; hydroxy; benzyloxy optionally substituted with halogen, C₁ – C₈ alkyl, C₁ – C₈ alkoxy, C₃ – C₈ cycloalkyl, C₃ – C₈ cycloalkoxy and hydroxy; aryl; heteroaryl; and a heterocyclic ring;

provided that when R₃ is methyl, R₈ is not hydrogen;

and pharmaceutically acceptable salts thereof,

and a pharmaceutically acceptable excipient;

said composition in the form of a liquid dosage form selected from the group consisting of emulsions and suspensions.

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20. (Amended) The pharmaceutical composition of claim 17, wherein said compound is selected from the group consisting of:

3-butyl-hypoxanthine;

3-butyl-thiohypoxanthine;

3-ethyl-hypoxanthine;

3-ethyl-thiohypoxanthine;

3,8-diethyl-hypoxanthine;

3,8-diethyl-thiohypoxanthine;

3-ethyl-8-cyclopropyl-hypoxanthine;

3-ethyl-8-cyclopropyl-thiohypoxanthine;

3-propyl-hypoxanthine;

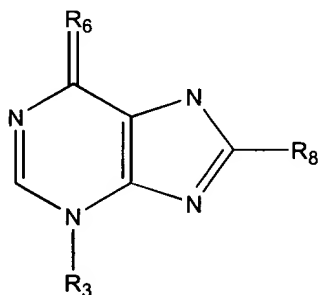
3-hexyl-hypoxanthine;

3-hexyl-thiohypoxanthine;
 3-benzyl-hypoxanthine;
 3-benzyl-thiohypoxanthine;
 3-(4-methyl-butyl)-hypoxanthine;
 3-(4-methyl-butyl)-thiohypoxanthine;
 3-(2-methyl-butyl)-hypoxanthine;
 3-(2-methyl-butyl)-thiohypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-hydroxy-1-methyl-ethyl)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-methyl-ethylene)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(benzyloxymethyl)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-(4-methoxybenzyloxy)-1-methyl-ethyl)-
 hypoxanthine;
 3-(3-cyclopentyloxy-4-methoxy-benzyl)-8-(1-(4-fluorobenzyloxy)-1-methyl-ethyl)-
 hypoxanthine;
 3-(3-benzyloxy-4-methoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;
 3-(3-4-dimethoxy-benzyl)-8-(1-benzyloxy-1-methyl-ethyl)-hypoxanthine;
 3-(3-benzyloxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-hydroxy-4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-4-dimethoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(1,3-benzdioxole-5-methyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(4-chloro-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;

3-(3-chloro-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(4-methoxy-benzyl)-8-(1-methyl-ethyl)-hypoxanthine;
 3-(3-4-dimethoxy-benzyl)-8-(1-(4-fluorobenzyloxy)-1-methyl-ethyl)-hypoxanthine;
 and pharmaceutically acceptable salts thereof.

Please add the following new claim:

21. (New) A pharmaceutical composition comprising an active agent consisting essentially of at least one compound of the formula:



wherein;

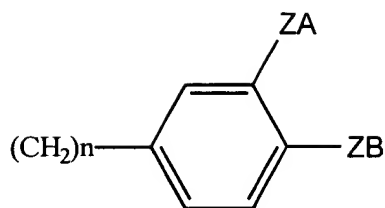
$R_6 = S$ or O

R_3 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q; and K;

R_8 is selected from the group consisting of $C_1 - C_8$ linear or branched alkyl; $C_2 - C_8$ linear or branched alkene; $C_2 - C_8$ linear or branched alkyne; C_{3-8} cycloalkyl; Q; and K;

wherein

Q has the general formula:



wherein;

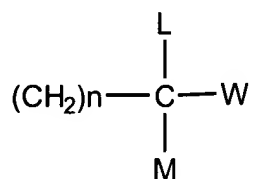
$n = 0$ or 1 ;

$Z =$ a bond, CH_2 , NH , O or S ;

A and B can form a ring by adding $1-3 CH_2$ groups when $Z = CH_2$, NH , O or S ; and

A and B are not in a ring when $Z =$ a bond, wherein A and B are independently selected from the group consisting of hydrogen; halogen; $C_1 - C_8$ alkyl; $C_1 - C_8$ alkoxy; $C_3 - C_8$ cycloalkyl; $C_3 - C_8$ cycloalkoxy; hydroxy; phenyl; benzyl; and benzyloxy; wherein said phenyl, benzyl and benzyloxy are optionally substituted with halogen, $C_1 - C_8$ alkyl, $C_1 - C_8$ alkoxy, $C_3 - C_8$ cycloalkyl, $C_3 - C_8$ cycloalkoxy and hydroxy;

K has the general formula:



wherein;

$n = 0$ or 1 ;

L and M are independently selected from the group consisting of hydrogen and methyl;